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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,657	08/24/2001	Osamu Kawamae	58799-046	1460

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EXAMINER

HUBER, PAUL W

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/935,657

Applicant(s)

KAWAMAE ET AL.

Examiner

Paul Huber

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4-6,8,9,11,13,15-18,20,21,23-25,27,29,31,33-36 and 38-44 is/are pending in the application.
- 4a) Of the above claim(s) 38-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,4-6,8,9,11,13,15-18,20,21,23-25,27,29,31,33-36 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 2, 4-6, 8, 9, 11, 13, 15-18, 20, 21, 23-25, 27, 29, 31, 33-36 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Van Den Enden et al. (USP-6,115,340).

Van Den Enden et al. discloses a data recording/reproducing method and apparatus for repeatedly recording/reproducing data on/from a rewritable recording medium. "[T]he invention is characterized in that the manner of representation of the recorded information comprises scrambling with a scramble key which scramble key is included in the information block. This is advantageous in that any correlation between information blocks to be recorded on the same location is reduced with scrambling" (col. 2, lines 34-40). A circuit (52, 59) data-converts data to be updated and recorded on a recorded area on the recording medium to form different data-converted data, by superimposing thereon information generated on the basis of data conversion information (random key) for every updating. Data conversion information and the different data-converted data are recorded on the recording medium. See figures 3 & 5, col. 6, lines 4-55, and col. 9, lines 6-30.

Claims 2, 4-6, 8, 13, 15-18, 20, 21, 23-25, 31, 33-36 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Sako et al. (USP-6,687,828).

Regarding claims 2, 20, 21 & 44, Sako et al. discloses a data recording method and apparatus for recording data on a rewritable recording medium. See figure 1. A circuit 13, 14 data-converts data to be recorded on the recording medium by superimposing thereon information generated on the basis of data conversion information, i.e., "playback information in the header data has been converted by ciphering using the key information" (col. 3, line 67 through col. 4, line 2). The data conversion information (key information) and the data-converted data (playback information in the header data) is then recorded on the recording medium. Sako et al. teaches that the recording medium is a data recordable medium 101, i.e., data is capable of being rerecorded. See col. 3, lines 40-46. In addition, "data conversion for ciphering is not limited to the examples of FIG. 4 and 5. For example, a pseudo-random number of the M sequence may be used for data conversion" (col. 5, lines 13-16). Accordingly, data is data-

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converted to be updated and recorded on a recorded area on the recording medium to form different data-converted data, by superimposing thereon information generated on the basis of data conversion information for every updating as claimed.

Regarding claims 4 & 23, the data conversion information (key information) is an initial value which is changed every recording. "A pseudo-random number of the M sequence may be used for data conversion" (col. 5, lines 14-16).

Regarding claims 5, 6, 24 & 25, additional information (e.g., sector address lower 1 byte) is embedded in a part of the data conversion information (key information). See figure 5. Since, the sector address lower 1 byte would remain the same for a rewriting of data, the additional information (sector address lower 1 byte) embedded in the data conversion information is made the same as before the rewriting.

Regarding claim 8, the data-converted data (playback information in the header data) is recorded in the vicinity of the recording position in which the data conversion information (key information) is recorded on the recording medium. See figures 4 & 5.

Regarding claims 13 & 31, Sako et al. discloses a data reproducing method and apparatus for reproducing from a recording medium, in which data conversion information (key information) and converted data (playback information in the header data) data converted by having superposed thereon information generated on the basis of the data conversion information (key information) are recorded. See figure 1. The data conversion information is read. Key information is generated on the basis of the data conversion information. See col. 5, lines 34-53. The converted data is then restored back to pre-conversion data of before the data-conversion, using the read data conversion information and the generated information. The pre-conversion data is then reproduced.

Regarding claims 15-18 & 33-36, additional information (e.g., sector address lower 1 byte) is embedded in a part of the data conversion information (key information). See figure 5. See also col. 5, lines 34-53.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time

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any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9, 11, 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sako et al., as applied to the claims above, in further view of Inazawa et al. (USP-6,587,948).

Sako et al. discloses the invention as claimed, but fails to specifically teach that the converted data is main data, identification data, error detection code, and error correction code, i.e., that all such information is data-converted for ciphering responsive to data conversion information (key information). However, Inazawa et al. teaches in reference to figure 1 that it is manifestly well known in the art that data to be recorded to a recording medium can be data-converted for ciphering responsive to data conversion information (key information), in the same field of endeavor, for the purpose of copy protecting the data to be recorded to the recording medium from unauthorized playback.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sako et al. such that all data to be recorded to the recording medium is data-converted for ciphering responsive to data conversion information (key information) as taught by Inazawa et al.. More specifically, scrambling of information is performed, for example by circuits of figures 4 or 5, on main data, identification data, error detection code, and error correction code, rather than just the playback mode information. A practitioner in the art would have been motivated to do this for the purpose of more reliably protecting data from unauthorized playback by ciphering all data to be recorded to the recording medium.

Applicant's arguments filed May 16, 2005 have been fully considered but they are not persuasive. The applicant argues that "it is not seen where any of those [applied] documents suggest different data conversion or using different data conversion information for each updating or new recording of data to a rewritable medium." The examiner respectfully disagrees. As explained in the rejection above, Sako et al. teaches that the recording medium is a data recordable medium 101, i.e., data is capable of being rerecorded. See col. 3, lines 40-46. In addition, "data conversion for ciphering is not limited to the examples of FIG. 4 and 5. For example, a pseudo-random number of the M sequence may be used for data conversion" (col. 5, lines 13-16). Using a random number for data conversion would result in a different data conversion or using different data conversion information for each updating or new

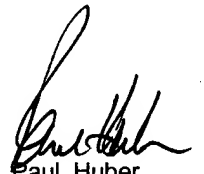
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recording of data to the rewritable medium. Accordingly, data is data-converted to be updated and recorded on a recorded area on the recording medium to form different data-converted data, by superimposing thereon information generated on the basis of data conversion information for every updating as claimed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Paul Huber at telephone number 571-272-7588.



Paul Huber
Primary Examiner
Art Unit 2653

pwh
August 2, 2005